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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,494	11/19/2001	Alex P. Weaver	WEAVER.PT1	5181

24943 7590 05/26/2005

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EXAMINER

GARCIA, ERNESTO

ART UNIT PAPER NUMBER

3679

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/997,494

Applicant(s)

WEAVER, ALEX P.

Examiner

Ernesto Garcia

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3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 5-27 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 5-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

The Office acknowledges applicant's withdrawal of claims 1 and 5-20.

### ***Claim Objections***

Claim 22 is objected to because of the following informalities:

regarding claim 22, the limitations in lines 1-4 repeat lines 26-29 of claim 21.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 21, there is an inconsistency between the language in the preamble and a certain portion in the body of the claim, thereby making the scope of the claims unclear. The preamble clearly indicated that the plurality of double locking mortise joints is "for a table having four table legs and a tabletop having four edges".

However, the body of the claim positively recites "the table legs" and "the tabletop edges", e.g., "a first mortise on each of said legs" (line 4) and "a second mortise on each of said tabletop edges" (line 16), which indicates the claims as being drawn to a combination of the "table legs", the "tabletop edges" and the "plurality of double locking mortise joints". Therefore, applicant must clarify what the claims are intended to be drawn to, i.e., either the "the plurality of double locking mortise joints" alone or in combination with the "the table legs and tabletop edges", and present the claims with the language which is consistent with the invention. For purposes of examination, the examiner has considered the plurality of double locking mortise joints alone.

Further, the number of joints per leg is unclear. Line 3 states "each of the joints comprising: (a) a first mortise on each of said legs", which indicates that more than one first mortise is on each leg to correspond to the plurality of joints. Also, the number of joints per tabletop edges is unclear. Lines 3 and 16, when combined states "each of the joints comprising: ... (b) a second mortise on each of said tabletop edges", which indicates that more than one second mortise is on each of the tabletop edges to correspond to the plurality of joints.

Further, in order to claim the "tabletop edges" in line 16, the tabletop has to be positively claimed. An edge cannot be claimed without the presence of where it is found, i.e., the tabletop.

Further, the limitation "a plurality of two opposing sides" in line 16 is misleading as the drawings shows no plurality of two opposing sides on the second mortise. There is only support for two opposing sides for the second mortise.

Regarding claims 22-26, the claims depend from claim 21 and therefore are indefinite.

Regarding claim 27, there is an inconsistency between the language in the preamble and a certain portion in the body of the claim, thereby making the scope of the claims unclear. The preamble clearly indicated that the plurality of double locking mortise joints is "for a table having four table legs and a tabletop having four edges". However, the body of the claim positively recites "the table legs" and "the tabletop edges", e.g., "a first mortise on each of said legs" (line 4) and "a second mortise on each of said tabletop edges" (line 16), which indicates the claims as being drawn to a combination of the "table legs", the "tabletop edges" and the "plurality of double locking mortise joints". Therefore, applicant must clarify what the claims are intended to be drawn to, i.e., either the "the plurality of double locking mortise joints" alone or in combination with the "the table legs and tabletop edges", and present the claims with the language which is consistent with the invention. For purposes of examination, the examiner has considered the plurality of double locking mortise joints alone.

Further, the number of joints per leg is unclear. Line 3 states "each of the joints comprising: (a) a first mortise on each of said legs", which indicates that more than one first mortise is on each leg to correspond to the plurality of joints. Also, the number of joints per tabletop edges is unclear. Lines 3 and 20, when combined states "each of the joints comprising: ... (b) a second mortise on each of said tabletop edges", which indicates that more than one second mortise is on each of the tabletop edges to correspond to the plurality of joints.

Further, in order to claim the "tabletop edges" in line 20, the tabletop has to be positively claimed. An edge cannot be claimed without the presence of where it is found, i.e., the tabletop.

Further, the limitation "a plurality of two opposing sides" in line 21 is misleading as the drawings shows no plurality of two opposing sides on the second mortise. There is only support for two opposing sides for the second mortise.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim of U.S. Patent No. D456,644, in view of Corson, 6,283,564 (see marked-up attachment provided in last Office action).

Regarding claim 21, with the exception of a second mortise with its features as claimed, every other feature of the invention as claimed is shown. Carson teaches a second mortise **90** having two opposing sides **A11**, a second mortise end **A12**, a top surface **A13**, and a bottom surface **A14**. The two opposing sides **A11** are generally parallel to each other. The second mortise end **A12** connects the opposing sides **A11**. The top surface **A13** and the bottom surface **A14** are next to the second mortise end **A12**. Carson teaches a second mortise to provide stability in making knock-down furniture when connected to the first mortise. Therefore, as taught by Corson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a second mortise to connect with the first mortise to provide stability in knock-down furniture.

Regarding claim 22, the first mortise further comprises a first mortise corner and a second mortise corner. The first mortise corner is located between the first mortise

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end and the head bottom. The second mortise corner is located between the first mortise end and the gusset top, and the first mortise corner **C100** or the second mortise corner **C100** is rounded (see attachment of the design patent provided in the last Office action).

Regarding claim 23, the first mortise corner and the second mortise corner are rounded (see attachment of the design patent provided in the last Office action as it shows both of the mortise corners **C100** are rounded).

Regarding claims 24-26, it is unclear how the limitations of these claims further limit the structure of the plurality of locking mortise joints.

Regarding claim 27, with the exception of a second mortise with its features as claimed, every other feature of the invention as claimed is shown. Carson teaches a second mortise **90** having two opposing sides **A11**, a second mortise end **A12**, a top surface **A13**, and a bottom surface **A14**. The two opposing sides **A11** are generally parallel to each other. The second mortise end **A12** connects the opposing sides **A11**. The top surface **A13** and the bottom surface **A14** are next to the second mortise end **A12**. Carson teaches a second mortise to provide stability in making knock-down furniture when connected to the first mortise. Therefore, as taught by Corson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a second mortise to connect with the first mortise to provide stability in knock-



down furniture. The first mortise further comprises a first mortise corner and a second mortise corner. The first mortise corner is located between the first mortise end and the head bottom. The second mortise corner is located between the first mortise end and the gusset top. The first mortise corner and the second mortise corner are rounded (see attachment of the design patent provided in the last Office action as it shows both of the mortise corners **C100** are rounded).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21 and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Elmer, 4,188,067 (see marked-up attachment provided in last Office Action).

Regarding claim 21, as best understood, Elmer discloses, in Figures 5 and 8, a plurality of double locking mortise joints each comprising a first mortise **46**, and a second mortise **82**. The first mortise **46** has a gusset top **B4**, a gusset body **100**, a head bottom **B5**, a first mortise end **B6**, a first contact surface **B7**, and a second contact surface **B8**. The first mortise **46** is generally perpendicularly with respect to an axis **B3**. The gusset top **B4** extends generally perpendicularly outward with respect to the axis

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**B3**. The gusset body **100** has a substantially triangular shape. The gusset top **B4** serves as one side of the triangular shape. The head bottom **B5** is opposite to and generally parallel to the gusset top **B4**. The head bottom **B5** is shorter in length than the gusset top **B4**. The first mortise end **B6** is generally parallel to the axis **B3** and connects the gusset top **B4** and the head bottom **B5**. The first contact surface **B7** and the second contact surface **B8** are next to the first mortise end **B6**.

The second mortise **82** has two opposing sides **B11**, a second mortise end **B12**, a top surface **B13**, and a bottom surface **B14**. The two opposing sides **B11** are generally parallel to each other. The second mortise end **B12** connects the opposing sides **B11**. The top surface **B13** and the bottom surface **B14** are next to the second mortise end **B12**.

The first mortise further comprises a first mortise corner **B15** and a second mortise corner **B16**. The first mortise corner **B15** and the second mortise corner **B16** are located between the first mortise end **B6** and the head bottom **B5**.

Regarding claims 24-26, as best understood, these claims do not further limit the structure of the plurality of double locking mortise joints.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22, 23, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elmer, 4,188,067 (see marked-up attachment), in view of Grisley, 5,711,356.

Regarding claim 22, Elmer, as discussed above, fails to disclose the first mortise corner or the second mortise corner being rounded. Grisley teaches between Figures 9b and 9c at least one of two mortise corners being rounded as part of a design choice. Therefore, as taught by Grisley, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make at least one of the two mortise corners rounded instead of square-edged as part of a design choice.

Regarding claim 23, Elmer, as discussed above, fails to disclose the first mortise corner and the second mortise corner being rounded. Grisley teaches between Figures 9b and 9c two mortise corners being rounded as part of a design choice. Therefore, as taught by Grisley, it would have been obvious to one of ordinary skill in the art at the

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time the invention was made to make the two mortise corners rounded instead of being square-edged as part of a design choice.

Regarding claim 27, as best understood, Elmer discloses, in Figures 5 and 8, a plurality of double locking mortise joints each comprising a first mortise **46**, and a second mortise **82**. The first mortise **46** has a gusset top **B4**, a gusset body **100**, a head bottom **B5**, a first mortise end **B6**, a first contact surface **B7**, and a second contact surface **B8**. The first mortise **46** is generally perpendicularly with respect to an axis **B3**. The gusset top **B4** extends generally perpendicularly outward with respect to the axis **B3**. The gusset body **100** has a substantially triangular shape. The gusset top **B4** serves as one side of the triangular shape. The head bottom **B5** is opposite to and generally parallel to the gusset top **B4**. The head bottom **B5** is shorter in length than the gusset top **B4**. The first mortise end **B6** is generally parallel to the axis **B3** and connects the gusset top **B4** and the head bottom **B5**. The first contact surface **B7** and the second contact surface **B8** are next to the first mortise end **B6**.

The second mortise **82** has two opposing sides **B11**, a second mortise end **B12**, a top surface **B13**, and a bottom surface **B14**. The two opposing sides **B11** are generally parallel to each other. The second mortise end **B12** connects the opposing sides **B11**. The top surface **B13** and the bottom surface **B14** are next to the second mortise end **B12**. The first mortise further comprises a first mortise corner **B15** and a

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second mortise corner **B16**. The first mortise corner **B15** and the second mortise corner **B16** are located between the first mortise end **B6** and the head bottom **B5**.

However, Elmer fails to disclose the first mortise corner and the second mortise corner being rounded. Grisley teaches between Figures 9b and 9c two mortise corners being rounded as part of a design choice. Therefore, as taught by Grisley, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the two mortise corners rounded instead of being square-edged as part of a design choice.

### ***Response to Arguments***

Applicant's arguments filed May 5, 2005 have been fully considered but they are not persuasive.

Applicant has argued that Elmer does not disclose "a plurality of double locking mortise joints for a table having four table legs and a tabletop having four tabletop edges, each of said legs being independently and separately removable from every other of said legs, each of said joints comprising: a first mortise on each of said legs, ... a second mortise on each of said tabletop edges," as claimed. In response, Applicant is reminded that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art

apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Applicant is reminded that the term “plurality” does not dismiss that two, three, five, and more joints are not within the confines of the definition of plurality. Two joints falls within the meaning of “plurality”. Therefore, Elmer discloses a plurality of joints. Further, patentability is not based on the intent of using these joins in a table and a tabletop, but rather in the structure of the mortise joints.

In respect to Grisley, applicant has argued that the examiner has not established a prima facie case of obviousness using Elmer and Grisley. Applicant states that there is no suggestion or motivation in Grisley to modify Elmer by making “at least one of the two mortise corners rounded”. Applicant then relies on the specification, page 6, lines 10-13, to indicate that finger joints provide no shear strength. In response, the examiner differs in that there is no discussion of rounded corners. The passage on page 6 does not discuss the reason why the rounded corner is very critical. It merely describes the shortcomings of finger joints. Applicant then relies in case law to indicate that Grisley teaches away from the combination but fails to mention how it teaches away. Applicant then argued that Grisley provides no motivation to modify or combine references to obtain applicant’s claimed invention. Explicitly, Grisley does not state the reason for making the square edge corner into a rounded corner or vice versa, but the examiner has explained that the combination of the teachings is proper as a matter of design choice. See *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986). It is apparent from Grisley that changing the corners by rounding or squaring is a matter

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of design choice. Further, one skilled in the art knows that making corners round versus square eliminates stresses as it is well found in engineering books and through many patents. Further, the examiner is not relying on the fingers to make a statement of obviousness but rather relying in the rounded corners versus square corners of the grooves. The fingers are of no relevance to the rejection.

Applicant then argued that there is no expectation of success for using the finger joint design of Grisley in combination with Elmer. The examiner differs in that the finger joint design has nothing to do with the rejection but rather the design of the corners of the female opening. The expectation of success of Grisley is apparent and inherent. The success, as a result of Grisley, is an aesthetic appeal.

Applicant then argued that the combination does not teach all of the claimed limitations according to the amendment filed. In response, the examiner has tackled this argument above in respect to the meaning of "plurality" and the argument of intended use.

In regards to claims 25 and 26, the arguments presented are out of scope as the details of the legs are immaterial to the patentability of the plurality of the double locking mortise joints.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30-5:30. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

E.G.

E.G.

May 20, 2005



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